



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/560,722	04/28/2000	RONALD G PARKINEN	K35A0604	5247

26332 7590 02/09/2005

WESTERN DIGITAL CORP.
20511 LAKE FOREST DRIVE
C205 - INTELLECTUAL PROPERTY DEPARTMENT
LAKE FOREST, CA 92630

EXAMINER

TRAN, THAI Q

ART UNIT PAPER NUMBER

2616

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/560,722

Applicant(s)

PARKINEN ET AL.

Examiner

Thai Tran

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 April 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the newly added limitation "receives at least a portion of a previously recorded video data stream from the at least one external rotating storage drive via the interface while continuing to record the external video data stream for the video program segment" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New

Art Unit: 2616

Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The newly added limitation "receives at least a portion of a previously recorded video data stream from the at least one external rotating storage drive via the interface while continuing to record the external video data stream for the video program segment" in claims 1 and 15 was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 21 recites the limitation "the encrypted streaming video data" in lines 3-4.

There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1, 5-6, 8-11, 15, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al (US 5,991,832) in view of Ido et al (US 6,782,188 B1).

Regarding claim 1, Sato et al, as discussed in the last Office Action, discloses a video recording system to record an external video data for a video program segment selected using an electronic program guide (Fig. 2), the video recording system comprising:

a user interface (the remote controller disclosed in col. 4, lines 46-48 and in col. 5, lines 48-50) that receives user input;

Art Unit: 2616

a video input interface (tuner 37 of Fig. 2, col. 3, lines 59-65) that receives the external video data for the selected video program segment;

an interface (IEEE1394 disclosed in col. 6, lines 57-60 and video disk disclosed in col. 7, lines 19-26) connectable to at least one external rotating storage drive; and

a video data management system that:

uses the electronic program guide to select the video program segment in response to the user input (selecting a program disclosed in col. 4, lines 7-19 and in col. 5, lines 34-61);

recognizes connection of the at least one external rotating storage drive to the video recording system and subsequently identifies the at least one external rotating storage drive as available for video data storage (detecting the connection with the VTR 22 disclosed in col. 5, lines 39-47 and col. 7, lines 19-26);

uses the external video data stream for the video program segment to provide video data (selecting television program disclosed in col. 4, lines 7-19 and in col. 5, lines 34-61); and

routes at least a portion of the video data to the at least one external rotating storage drive via the interface in order to record the external video data for the video program segment (recording video data disclosed in col. 5, lines 31-61). However, Sato et al's Fig. 2 does not specifically disclose that the video data is video data stream (digital video signal) and the new added limitation receives at least a portion of a previously recorded video data stream from the at least one external rotating storage

Art Unit: 2616

drive via the interface while continuing to record the external video data stream for the video program segment .

Sato et al also teaches that video signal can be digital transmitted such as satellite digital broadcasting system (col. 1, lines 13-21).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the well known satellite digital broadcasting system disclosed in col. 1, lines 13-21) into Fig. 2 of Sato et al in order to increase the flexibility of the system by permitting the digital video signal to be recorded.

Additionally, Ido et al teaches a data recording apparatus for receiving at least a portion of a previously recorded from the magnetic tape 1 while continuing to record the external video data for the video program segment (switches 15 and 16 of Fig. 1, col. 10, line 30 to col. 11, line 58) to edit a plurality of original video materials recorded on magnetic tapes so as to produce a television program to be on the air is carried out (col. 1, lines 42-48).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the capability of editing video signals as taught by Ido et al into Sato et al's system in order to utilize the advantage of editing video signals to obtain desirable video signal.

Regarding claim 5, Sato et al's Fig. 2 does not specifically disclose a personal video recorder that receives the external video data stream.

Sato et al teaches in col. 6, lines 61-65 that "In addition, in the configuration shown in FIG.2, one unit of TV is connected to one unit of VTR. It should be noted,

Art Unit: 2616

however, that three or more AV apparatuses can be connected to each other in a configuration like the one shown in Fig. 1”.

Therefore, It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate additional AV apparatus such as VTR as taught in col. 6, lines 61-65 of Sato et al into Fig. 2 of Sato et al since it merely amounts to selecting additional AV apparatus because Sato et al teaches additional AV apparatus can be added to the system.

Regarding claim 6, Sato et al also teaches the claimed wherein the personal video recorder comprises an internal rotating storage drive (video disk disclosed in col. 7, lines 19-26).

Regarding claim 8, Sato et al discloses the claimed wherein the video data management system automatically recognizes connection of the external rotating storage drive to the video recording system (detecting the connection with the VTR 22 disclosed in col. 5, lines 39-47 and col. 7, lines 19-26).

Regarding claim 9, Sato et al also discloses the claimed wherein the external rotating storage drive comprises an external hard disk drive (video disk disclosed in col. 7, lines 19-26).

Regarding claim 10, Sato et al discloses the claimed wherein the interface comprises an isochronous interface which is compatible with the IEEE 1394 standard (col. 6, lines 57-60).

Art Unit: 2616

Regarding claim 11, Sato et al discloses the claimed wherein the external video data stream and streaming video data include video data and audio data (col. 2, lines 56-65).

Method claim 15 is rejected for the same reasons as discussed in the corresponding apparatus claim 1 above.

Regarding claim 20, the proposed combination of Sato et al and Ido et al discloses all the claimed limitations as discussed in claim 1 above except for providing wherein the at least one external rotating storage drive comprises two or more external hard disk drives.

The capability of using plurality of hard disk drives to store video signal is old and well known in the art and; therefore, Official Notice is taken.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the well known plurality of hard disk drives into Sato et al's system in order to increase the storage capacity.

9. Claims 2-3, 12-13, and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al (US 5,991,832) in view of Ido et al (US 6,782,188 B1) as applied to claims 1 and 15 above, and further in view of Hedricks et al (US 5,990,927).

Regarding claim 2, the proposed combination of Sato et al and Ido et al discloses all the claimed limitations as discussed in claim 1 above except for providing a set-top box that receives the external video data stream from a multiple-service operator.

Hendricks et al teaches a set top box (col. 3, lines 26-35) having user friendly interface for subscribers to access television programs (col. 2, lines 48-59).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the set top box as taught by Hendricks et al into Sato et al's system in order to facilitate the capability of access to hundreds of television programming options.

Regarding claim 3, Hendricks et al also teaches that the set-top box comprises an internal rotating storage drive (col. 15, lines 23-33).

Regarding claim 12, Hendricks et al teaches the claimed wherein the video data management system further comprises a video data encoder that encodes at least a portion of the streaming video data (col. 10, lines 26-29).

Regarding claim 13, Hendricks et al further teaches a video data encrypter (col. 9, lines 29-30) that encrypts video data to prevent unauthorized user accessing the video signal.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the video data encrypter as taught in Hendricks et al into Sato et al's system in order to prevent unauthorized user accessing the video signal.

Method claim 16 is rejected for the same reasons as discussed in the corresponding apparatus claim 12 above.

Method claim 17 is rejected for the same reasons as discussed in the corresponding apparatus claim 13 above.

10. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al (US 5,991,832) in view of Ido et al (US 6,782,188 B1) as applied to claim 6 above, and further in view of Carroll et al (US 6,016,507).

The proposed combination of Sato et al and Ido et al discloses all the claimed limitations as discussed in claim 6 above except for providing wherein the internal rotating storage drive is an internal hard disk drive comprising an IDE interface.

Carroll et al teaches a well known IDE hard disk 82 (col. 4, lines 23-37).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the well known IDE hard disk as taught by Carroll et al into Sato et al's system in order to increase storage capacity,

11. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al (US 5,991,832) in view of Ido et al (US 6,782,188 B1) and Hendricks et al (US 5,990,927) as applied to claim 3 above, and further in view of Carroll et al (US 6,016,507).

The combination of Sato et al, Ido et al, and Hendricks et al discloses all the claimed limitations as discussed in claim 3 above except for providing wherein the internal rotating storage drive is an internal hard disk drive comprising an IDE interface.

Carroll et al teaches a well known IDE hard disk 82 (col. 4, lines 23-37).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the well known IDE hard disk as taught by Carroll et al into Sato et al's system in order to increase storage capacity.

12. Claims 14 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al (US 5,991,832) in view of Ido et al (US 6,782,188 B1) as applied to claims 1 and 15 above, and further in view of Sugiyama et al (US 5,815,631).

Art Unit: 2616

Regarding claim 14, the proposed combination of Sato et al and Ido et al discloses all the claimed limitations as discussed in claim 1 above except for providing that the video data management system comprises an internal rotating storage drive and routes at least a portion of the streaming video data to the internal rotating storage drive.

Sugiyama et al teaches in the AV system, one AV device may be designated as an AV center and one or more AV devices may be coupled thereto and, as such, designated as a child (salve) AV device or devices (col. 4, lines 53-60).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the capability of selecting any AV device as AV center as taught in Sugiyama et al into Sato et al's system in order to increase the flexibility of the system of Sato et al. When the disk player is selected as AV center, the disk became internal rotating storage drive.

Method claim 18 is rejected for the same reasons as discussed in apparatus claim 14 above.

13. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al (US 5,991,832) in view of Ido et al (US 6,782,188 B1) and Sugiyama et al (US 5,815,631) as applied to claim 18 above, and further in view of Wieland (DE 3106125 A1).

The combination of Sato et al, Ido et al, and Sugiyama et al discloses all the claimed limitations as discussed in claim 18 above except for providing routing the portion of the streaming video data to the external rotating storage drive when the

Art Unit: 2616

storage capacity of the internal rotating storage drive is insufficient to accommodate the anticipated size of the portion of the streaming video data to be recorded.

Wieland teaches that several video tape recorders are connected in parallel to the same t.v. receiver and switched on sequentially as their tapes run out (the abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the capability of sequentially changing recording media when recording space run out as taught by Wieland into Sato et al's system in order to complete record the video program even when recording space run out.

14. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al (US 5,991,832) in view of Ido et al (US 6,782,188 B1) as applied to claim 1 above, and further in view of Wieland (DE 3106125 A1) and Hendricks et al (US 5,990,927).

The combination of Sato et al and Ido et al discloses all the claimed limitations as discussed in claim 1 above except for providing routing the portion of the streaming video data to the at least one external rotating storage drive and routing a second section of the encrypted streaming video data to a second external hard disk drive when the storage capacity of the first hard disk drive is insufficient to accommodate the anticipated size of the portion of the streaming video data to be recorded.

Wieland teaches that several video tape recorders are connected in parallel to the same t.v. receiver and switched on sequentially as their tapes run out (the abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the capability of sequentially changing recording media when

Art Unit: 2616

recording space run out as taught by Wieland into Sato et al's system in order to complete record the video program even when recording space run out.

The combination of Sato et al, Ido et al, and Wieland discloses all the claimed limitations except for providing the video signal is encrypted.

Hendricks et al teaches a video data encrypter (col. 9, lines 29-30) that encrypts video data to prevent unauthorized user accessing the video signal.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the video data encrypter as taught in Hendricks et al into Sato et al's system in order to prevent unauthorized user accessing the video signal.

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 2616

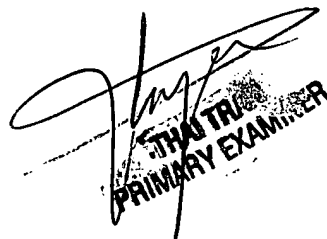
16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai Tran whose telephone number is (703) 305-4725.

The examiner can normally be reached on Mon. to Friday, 8:00 AM to 5:30 PM.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TTQ



THAI TRAN
PRIMARY EXAMINER